

Application No. 10/617,681

TMI-5004-08

IN THE CLAIMS

1-55. (Canceled)

56. (Currently amended) A method of starting up disk drive spindle motors in an array disk system [[,]] having disk drives organized into groups which are started up separately so as to reduce the amount of electric current required by the array disk system, said method comprising the following steps:

supplying current to start up some of a first group of said spindle motors initially, said first group of said spindle motors started up initially being more than one spindle motor and less than all of said spindle motors; and

then supplying current to additionally start up at least one or more of said spindle motors other than said first group said spindle motors started up initially.

57. (Currently amended) A method of starting up disk drive spindle motors in an array disk system as claimed in claim 56,

wherein said supplying steps are performed such that a spindle motor in a start-up is supplied with a start-up current, and a spindle motor at steady-state is supplied with a steady-state current that is lower than said start-up current.

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58. (Currently amended) An array disk system [[,]] having disk drives organized into groups which are started up separately so as to reduce the amount of electric current required thereby, said system comprising:

a plurality of disk drive spindle motors; and
a power supply electrically connected to said plurality of disk drive spindle motors,

wherein said power supply supplies current to start up ~~some of~~ a first group of said spindle motors initially, said first group of said spindle motors started up initially being more than one spindle motor and less than all of said spindle motors, and then additionally supplies current to start up at least one or more of said spindle motors other than said first group of said spindle motors started up initially.

59. (Previously presented) An array disk system as claimed in claim 58,

wherein said power supply supplies a spindle motor in a start-up with a start-up current, and supplies a spindle motor at steady-state with a steady-state current that is lower than said start-up current.

60. (New) A method of starting up disk drive spindle motors in an array disk system as claimed in claim 56,

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wherein the time between power switch-on of the overall array disk system and start of driving the spindle motors is set independently for each of the groups of the disk drives so as to prevent overlap of the initial currents among the groups.

61. (New) A method of starting up disk drive spindle motors in an array disk system as claimed in claim 56,

wherein the number of the disk drives constituting the individual groups decreases in the order that the groups are started up.

62. (New) A method of starting up disk drive spindle motors in an array disk system as claimed in claim 61,

wherein after the start-up of the first group of spindle motors, the reserve power of a power supply that supplies the current to the first group of spindle motors is equal to the rated capacity of the power supply minus the amount of current required for maintaining the disk drives of the first group in the steady state.

63. (New) An array disk system as claimed in claim 58, wherein the time between power switch-on of the overall array disk system and start of driving the spindle motors is set independently for each of the groups of the disk drives so

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as to prevent overlap of the initial currents among the groups.

64. (New) An array disk system as claimed in claim 58, wherein the number of the disk drives constituting the individual groups decreases in the order that the groups are started up.

65. (New) An array disk system as claimed in claim 64, wherein the reserve power of the power supply after the start-up of the first group is equal to the rated capacity of the power supply minus the amount of current required for maintaining the disk drives of the first group in the steady state.